**WHAT IS CLAIMED IS:**

1. An isolated polynucleotide encoding an auxin-induced primary response polypeptide comprising a member selected from the group consisting of:

a) a polynucleotide having at least 75% sequence identity, as determined by the GAP algorithm under default parameters, to a polynucleotide of SEQ ID NO: 1 or SEQ ID NO: 5;

b) a polynucleotide encoding a polypeptide of SEQ ID NO: 2;

c) a polynucleotide amplified from a Zea mays nucleic acid library using primers which selectively hybridize, under stringent hybridization conditions, to loci within a polynucleotide selected from the group consisting of SEQ ID NOS: 1 and 5;

d) a polynucleotide which selectively hybridizes, under stringent hybridization conditions and a wash in 0.1X SSC, 0.5% (w/v) SDS at about 65°C for about 30 minutes, to a polynucleotide selected from the group consisting of SEQ ID NOS: 1 and 5;

e) a polynucleotide of SEQ ID NO: 1 or 5;

f) nucleic acids deposited with the American Type Culture Collection and designated as PTA-2426 and PTA-2427; and

g) a polynucleotide comprising at least 25 contiguous nucleotides from a polynucleotide of (a), (b), (c), (d), or (e).

2. A recombinant expression cassette, comprising a member of claim 1 operably linked, in sense or anti-sense orientation, to a promoter.

3. A host cell comprising the recombinant expression cassette of claim 2.

4. A transgenic plant comprising the recombinant expression cassette of claim 2.

5. The transgenic plant of claim 4, wherein said plant is a monocot.

6. The transgenic plant of claim 4, wherein said plant is a dicot.

7. The transgenic plant of claim 4, wherein said plant is selected from the group consisting of: maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, millet, peanut, and cocoa.

8. A transgenic seed from the transgenic plant of claim 4.

9. A method of plant hybridization wherein at least one parent comprises the recombinant expression cassette of claim 2.

10. A method of altering the level of ZmAxig1 protein in a plant, comprising:

a) introducing into a plant cell a recombinant expression cassette comprising a polynucleotide of claim 1 operably linked to a promoter;

b) culturing the plant cell under plant cell growing conditions;

c) regenerating from said cultured plant cell a plant which possesses the transformed genotype; and

d) allowing or inducing expression of said polynucleotide for a time sufficient to alter the level of ZmAxig1 protein in said plant.

11. The method of claim 10, wherein the plant is maize, wheat, rice, or soybean.

12. A method of altering the level of ZmAxig1 protein in a plant cell, comprising:

a) introducing into a plant cell a recombinant expression cassette comprising a polynucleotide of claim 1 operably linked to a promoter;

b) culturing the plant cell under plant cell growing conditions;

c) allowing or inducing expression of said polynucleotide for a time sufficient to alter the level of ZmAxig1 protein in said plant cell.

13. The method of claim 12, wherein the plant cell is from maize, wheat, rice, or soybean.

14. An isolated protein comprising a member selected from the group consisting of:

a) a polypeptide of at least 20 contiguous amino acids from SEQ ID NO: 2;

b) a polypeptide of SEQ ID NO: 2;

c) a polypeptide having at least 75% sequence identity to the entire length of SEQ ID NO: 2, wherein said sequence identity is determined by the GAP algorithm under default parameters; and,

d) at least one polypeptide encoded by a member of claim 1.

15. An isolated polynucleotide comprising a transcriptional regulatory element responsive to the presence of auxin, wherein said polynucleotide is selected from the group consisting of:

a) SEQ ID NOS: 3, 4, and 16;

b) operable fragments of SEQ ID NOS. 1, 3, 4, 5, and 16;

c) the nucleic acids deposited with the American Type Culture Collection and designated as PTA-2426 and PTA-2427;

d) polynucleotides having at least 75% sequence identity to the entire length of SEQ ID NOS: 3, 4, or 16, wherein the % sequence identity is determined by the GAP algorithm under default parameters;

e) polynucleotides amplified from Zea mays nucleic acids using primers selected from the group consisting of SEQ ID NOS: 6, 7, 8, 9, and 10; and

f) nucleic acids isolated from the 5' regulatory region of a polynucleotide having at least 75% identity to the *ZmAxig1* coding region.

16. An isolated polynucleotide which selectively hybridizes, under stringent hybridization conditions and a wash in 0.1X SSC, 0.5% (w/v) SDS at about 65° for about 30 minutes, to a polynucleotide of Claim 15.

17. A recombinant expression cassette, comprising a polynucleotide of interest operably linked, in sense or anti-sense orientation, to a transcriptional regulatory element of Claim 15.

18. A method of selectively inducing altered expression of a gene of interest in a plant, said method comprising stably incorporating into the genome of said plant an expression cassette of Claim 17 and inducing activation of the transcriptional regulatory element by exposing said plant to an auxin.

19. The method of claim 18, wherein said induced alteration in gene expression is tissue-preferred.

20. The method of claim 19, wherein said tissue-preferred alteration in gene expression occurs in one or more of anther, tapetum, and meristem tissues.

21. The method of claim 18, wherein said altered expression results in disruption of plant fertility.

22. The method of claim 18, wherein said altered expression results in partial or complete fertility in an otherwise completely or partially sterile plant.

23. The method of claim 18, wherein the gene of interest is Ms45.

24. The method of claim 18, wherein said plant is a dicot.

25. The method of claim 18, wherein said plant is a monocot.

26. The method of claim 25, wherein said monocot is maize, wheat, or rice.

27. A transgenic plant comprising a recombinant expression cassette of Claim 17.

28. The transgenic plant of claim 27, wherein said plant is a monocot.

29. The transgenic plant of claim 27, wherein said plant is a dicot.

30. The transgenic plant of claim 27, wherein said plant is selected from the group consisting of: maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, millet, peanut, and cocoa.

31. A transgenic seed from a transgenic plant of claim 27.

32. A method of plant hybridization wherein at least one parent comprises the recombinant expression cassette of claim 17.

33. A method of improving transformation efficiency comprising transforming a population of cultured plant cells with an expression cassette comprising a transcriptional regulatory element of claim 15 operably linked to a polynucleotide which stimulates embryogenesis.

34. The method of claim 33 wherein the polynucleotide which stimulates embryogenesis is a LEC1 polynucleotide.

35. The method of claim 33 wherein the polynucleotide which stimulates embryogenesis is selected from the group consisting of SEQ ID NOS: 18, 19, and 20.

36. The method of claim 33 wherein the polynucleotide which stimulates embryogenesis encodes a polypeptide comprising SEQ ID NO: 21.